REVIEW: SOLMETA GEOTAGGER PRO

THE BEST GEOTAGGING DEVICE IN THE WORLD

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INDEX

Index 2

What can it do and why do you want to have it 3

What is in the box 4

The technical specs 5

Performance 6

Pro's 7

Con's 7

The Geotagger Pro- conclusion 8

Advise to Solmeta 9

- General 9
- Website 9
- New products 9

See in Pics 10

Extra information 11

WHAT CAN IT DO AND WHY DO YOU WANT TO HAVE IT

Geotagging is a process of adding tags to a photograph to locate it on the globe. This is generally done by adding the longitude and latitude to the EXIF (Exchangeable Image File Format) metadata of the digital photo. There are a lot of geotagging devices out there, but almost all of them have one big problem.

The picture and the geotag information need to be merged afterwards to the photo. This generates extra work and the precision you need is not there anymore. What will result in a geotagged photo that shows in Google earth but places it in the river instead of the road.

To solve this problem you need the exact coordinates at the moment you take the picture. This is taken care of by Solmeta and all of their products can be clicked on the hot-shoe of your camera. This ensures you that the pictures you take contain the geotag information corresponding to the moment you took your photos.

Solmeta offers 3 products add the moment and there is only 1 competitor: the Nikon GP-1. The underlying table shows why the Geotagger Pro is the device you want!

	Solmeta N1	Solmeta N2	Solmeta Pro	Nikon GP-1
Price (Including Shipping)	85	120	195	200
Battery	Yes - 10 Hours	Yes - 10 Hours	Yes - 10 Hours	No
Power From Nikon Camera's	Yes	Yes	Yes	Yes
Hot-Shoe Fixation	Yes	Yes	Yes	Yes
Fast Strap Fixation	Yes	Yes	Yes	Yes
Working Indoor	Yes	Yes	Yes	No
Latitude	Yes	Yes	Yes	Yes
Longitude	Yes	Yes	Yes	Yes
Altitude	Yes	Yes	Yes	Yes
Date & Time	Yes	Yes	Yes	Yes
Orientation	No	Yes	Yes	No
2axis Compass	No	Yes	Yes	No
3D Compass	No	No	Yes	No
Speed	No	No	Yes	No
Gradienter	No	No	Yes	No
Internal Memory	No	No	Yes - 8 Mb	No
Comes with Software	Yes	Yes	Yes	Yes
Records GPS positions as tracking your walk	No	No	Yes	No
Works with other brands then Nikon	No	No	Yes - With optional Hot-shoe adapter	No

WHAT IS IN THE BOX

	Nikon D3,D700,D300,D2X,D2XS, D2HS & D200	Nikon D90 & D5000	Other brands with a hot shoe
Geotagger Pro GPS Unit	Yes	Yes	Yes
Y-1 connecting cable for 10-pin remote terminals	Yes	No	Yes
Y-2 connecting cable for accessory terminals	No	Yes	No
USB cable for charging and data transmission	Yes	Yes	Yes
Camera strap Fastener	Yes	Yes	Yes
One CD containing user's manual and software utilities	Yes	Yes	Yes
Optional: Hot-shoe adapter	No	No	Yes + €10,00

THE TECHNICAL SPECS

GPS		
ELECTRICAL CHARACTERISTICS	**ACCURACY**	**DATUM& PROTOCOL**
GPS Chipset SiRF Star III	Position Horizontal 10 meters, 2D RMS	Datum WGS-84
Frequency L1, 1575.42 MHz	1-5 meters 2D RMS, SBAS corrected (WASS, EGNOS, MSAS)	GPS Protocol NMEA 0138 ASCII
C/A Code 1.023 MHz chip rate	Velocity 0.1m/sec.	Baud Rate 4,800 bps
Channels 20 channel all-in-view tracking	Time 1 micro-second synchronized to GPS time	
Tracking sensitivity -159dBm		
ACQUISITION RATE	**DYNAMIC CONDITION**	
Hot start 1 sec., average	Acceleration Limit Less than 4g	
Warm start 38 sec., average	Altitude Limit 18,000 meters (60,000 feet) max	
Cold start 42 sec., average	Velocity Limit 515 meters/sec. (1,000 knots) max	
Reacquisition 0.1 sec., average	Jerk Limit 20 m/sec*3	
3 AXIS ELECTRONIC COMPASS		
Magnetic Measuring scope 50A/m	Azimuth Range 0-359°	Accuracy ±5°
	Resolution 3°	
3 AXIS ACCELERATION SERSOR		
Measuring scope ＋/- 60°	Accuracy ±5°	Resolution ＋/- 5°
BATTERY		
Battery 500mAh Li-ion	Operation Current Lower than 60mA	Charging Current 300mA
OPERATING CONDITIONS		
Operating temperature -10°C—50°C(-2°F ~ 122°F)	Humidity Operational up to 95% non-condensing	
SIZE &WEIGHT		
Dimension 56 (L)mmX36(W)mm X 19(H)mm (2.2” [L] x 1.4” [W] x 0.7” [H])		Weight 50g (1.8 oz)
INTERFACE		
12 pin USB port, Nikon 10 pin port, Nikon 8 pin port(for Nikon D90 and D5000), USB charging port, Φ2.5mm remote port		

PERFORMANCE

I tested the Geotagger pro with two cameras a Nikon D5000 and a Sony A350. Nikon has the advantage that they support a GPS signal directly into the camera, so no computer is needed to merge GPS data and Photos. Currently no other brands have that feature so for the Sony it was still necessary to merge.

The following table will show you the results of my tests (and observations) of the Geotagger Pro:

	Nikon D5000	**Sony A350 + hot-shoe adaptor**
Difference in position city (real vs. GPS)	0,3 meter	0,3 meter
Difference in position country site (real vs. GPS)	0,2 meter	0,2 meter
All information stored in EXIF	Yes	Yes, but depends on the software used to merge the data.
Storage capacity	The amount of the camera memory (currently max 16 GB per SD card)	8 mb (60 000 entry points)
Battery life	10 hours + Nikon power (hypothetically unlimited)	10 Hours
Laptop needed on holiday	No	Preferably yes because you want to merge Geotag data
Use of flashlight possible	No	Yes, the internal one (because of the extra height of the hot-shoe adaptor)
Geotag data merge risks	No	Yes because the camera time and GPS time can be different

PRO'S

- Best Geotagging device in the world!
- Accurate till 1 till 2 meters precision (really impressive)
- Quick GPS fix
- Both geotagger as geotracker
- LCD display that shows you everything!
- Indoor auto fix
- Auto turn on/off
- Internal battery, so works also without a camera
- Works with all brands of camera´s
- Extra information that really matters (compass, height and heading)
- Works perfect together with Nikon dslr's

CON'S

- Flash cannot pop-up on a Nikon camera
- There is a temperature sensor in but currently not supported by the software
- If you have another brand then Nikon you spend extra money on a Hot-shoe adaptor
- With another brand you need to Geotag your photos afterwards with use of an computer
- You need to read the manual 3 times to understand de way the display information works (Solmeta is working on an improved version!)
- The manual layout is amateurish and the information could be made more dummy proof (Solmeta is working on an improved version!)
- Manual is only digital (Not directly a bad thing, but you use the geotagger while you are travelling and paper could be handy)
- CD-rom doesn't have an automated menu it are just folders with al lot of freeware geotag software (which is great, but links to the site is better because you get the latest version)
- Software is very basic and not really user friendly, but it does what it need to do

THE GEOTAGGER PRO- CONCLUSION

The product is almost perfect and currently the best option to buy if you have a Nikon camera and you want to Geotag your photos. Of course, some small things would help to improve the product (like temperature and a smaller size). Still those little things should not be a reason for not buying the Device.

The fact you now have one device that geotracks and geotags is a golden combination!

Unfortunately, it is not that well known and distribution, marketing, user friendliness could be better. (see the next chapter). So hopefully Solmeta is working on that and all pro-sumers will know this product is on the market.

ADVISE TO SOLMETA

GENERAL

Great products, but only for a very specific target audience. This means the products must be sold to the whole world to make a profit out of it. Then a great super easy and very informative website is necessary. Currently this is not yet the case (see paragraph: Website)

The distribution channels must be spread out over the whole world, Professional camera shops must sell these products, and distribution must be at least in Asia, Europe, and America.

WEBSITE

- Not browser compatible. The layout in Chrome, Safari and Firefox is a mess.
- The shop is very basic and it is not very clear what you receive if you order something.
- You can only pay with PayPal but that is not very user friendly especially when you get Chinese signs in PayPal.
- Copyright is till 2009 but we are living in 2010
- The whole layout of the website should be 2.0 and Demos must show more possibilities.

NEW PRODUCTS

My advice would be to create a professional and a consumer line of the products.

The current professional line of the products is great for people who know what their dealing with. Problem is that the manual, software and user friendliness is currently on an unprofessional level.

Consumer products must be cheaper and should be available in all the big camera shops in the world. However, the most important thing is they should be extremely easy to use and understand. The use part is good when the consumer has a Nikon dSLR but for other cameras, it is currently not so easy. Few Ideas:

- Create a Geotagger with a remote SD card where the GPS data is directly merged into the photos.
- Make appointments with camera producers so more brand support GPS.
- Attach software and a user manual that is so easy that consumers always know what to do.

SEE IN PICS

EXTRA INFORMATION

- http://www.solmeta.com/product_pro.asp?pic_id=141
- http://www.geosolve.be/SOLMETA_GEOTAGGER_PRO_REVIEW_EN_20090914.pdf